CLIPPEDIMAGE= JP02001267200A

PAT-NO: JP02001267200A

DOCUMENT-IDENTIFIER: JP 2001267200 A

TITLE: GAS REPLACING METHOD AND APPARATUS, AND EXPOSING METHOD

AND ALIGNER

PUBN-DATE: September 28, 2001

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APPL-NO: JP2000071211 APPL-DATE: March 14, 2000

INT-CL_(IPC): H01L021/027; G03F001/14 ; GÓ3F007/20

ABSTRACT:

PROBLEM TO BE SOLVED: To provide a gas replacing method and gas replacing

apparatus and an exposing method and aligner by which the gas in a space formed

between a substrate and a film placed on the substrate through a frame member $% \left(\frac{1}{2}\right) =\frac{1}{2}\left(\frac{1}{2}\right) +\frac{1}{2}\left(\frac{1}{2}\right$

can be replaced with efficiency and stability.

SOLUTION: A pellicle frame PF interposed between a mask M and a pellicle PE has $\,$

a plurality of ventilating holes h1-h4. A gas replacing device C is provided

with a first chamber 81 in which a part of the ventilating holes h1 and h2 are

placed, a second chamber 82 in which the other ventilating holes h3 and h4 are

placed, a gas supplying apparatus 83 which pressurizes the first chamber 81 by

a specified gas, and a depressurizing apparatus 84 which depressurizes the

second chamber 82 by the pressure of a space GS. Consequently, the gas in the

space GS formed between the mask M and the pellicle PE can be replaced with the

specified gas with efficiency.

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